SCHEDULING OF AGV FOR 3 MACHINES SYSTEM IN SIMULATOR

CASE STUDY WITH 4 TYPES OF LAYOUT

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis

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ABSTRACT

SCHEDULING OF AGV FOR 3 MACHINES SYSTEM IN SIMULATOR

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The purpose of the thesis is to develop scheduling system for AGV using a simulation and to find the number of AGV that works well with the schedule system and the layout. The schedule uses FIFO method for the job dispatch and Gantt Chart for the process timeline. Brute Force Method will be used to determine the effective number of AGV, the movement speed of AGV and dispatch interval. The simulation softwares that are used in the work are V-REP and Plant Simulation Tecnomatix.

The layout configuration, distance between stations, number of AGV, speed of AGV and dispatch interval are the main factors affecting the scheduling system. The simulation gives a result report in numbers to show the effectiveness of the scheduling system. Adjustment to simulation parameters, which are the number of AGV, speed of AGV and interval dispatch, can be made to achieve better performance.

Keywords: Scheduling system, AGV, simulation, layout

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DEDICATION

I want to dedicate this thesis to my family for their support, constant prayer, and love, to my all beloved friend for their helping hand and to anyone, who will be benifiting from this thesis

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